presenting with non-ST-segment acute coronary syndromes (NSTEACS) in the large-scale ACUITY trial.
Methods: ACUITY was as an international randomized trial of different antithrombotic and antiplatelet regimens in 13,819 patients with moderate and high-risk NSTEACS. Revascularization strategy was per discretion of the local clinical team. We compared patients with a history of prior CABG by revascularization strategy (CABG vs. PCI).
Results: A total of 1,433 NSTEACS patients with previous CABG underwent revascularization in the ACUITY trial. Of them, 1,360 (94.9%) underwent PCI and 73 (5.1%) underwent redo CABG. Redo CABG was associated with greater rates of post-procedural acute kidney injury (AKI) (30.0% vs. 10.8%, p<0.0001) and 30-day major bleeding (63.1% vs. 6.6%, p<0.0001) compared with PCI. CABG (vs. PCI) was an independent predictor of AKI and major bleeding. At 1-year, redo CABG rather than PCI was associated with higher rates of MI (21.2%% vs. 13.5%, p=0.04), mortality (13.8% vs. 5.4%, p=0.0007), and MACE (39.2% vs. 27.8%, p =0.007), whereas ischemia-driven target vessel revascularization was more common in the PCI group (12.4% vs. 1.7%, p=0.02). By multivariable analysis, redo CABG was independently associated with 1-year mortality and MACE (Table).
Conclusions: Patients with prior CABG presenting with NSTEACS who were managed with redo CABG rather than PCI had higher rates of short- and long-term adverse events. While not a randomized trial, these data suggest that PCI should be the favored procedure in the NSTEACS patient with prior CABG in whom revascularization is required.

Table. Independent Predictors of Events

Independent predictors of 1-year mortality		
Male sex	3.38 [1.47, 7.76]	0.004
Acute kidney injury	2.96 [1.67, 5.26]	0.0002
CABG vs. PCI revascularization	2.94 [1.37, 6.25]	0.006
Diabetes	2.22 [1.30, 3.82]	0.004
Biomarker elevation	2.11 [1.21, 3.68]	0.009
Age (10-year increments)	1.79 [1.31, 2.45]	0.0002
Baseline hemoglobin	0.83 [0.71, 0.97]	0.02
Independent predictors of 1-year MACE		
CABG vs. PCI revascularization	1.59 [1.03, 2.50]	0.04
Acute kidney injury	1.57 [1.15, 2.14]	0.004
Previous PCI	1.43 [1.13, 1.82]	0.003
Biomarker elevation	1.26 [1.00, 1.58]	0.046

AKI = acute kidney injury; CABG = coronary artery bypass graft; MACE = major adverse cardiovascular event; PCI = percutaneous coronary intervention.

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Clinical Appearance Of Glycemic Variability In Patients With ST-Elevated Myocardial Infarction Evaluated With Continuous Glucose Monitoring System (CGMS)

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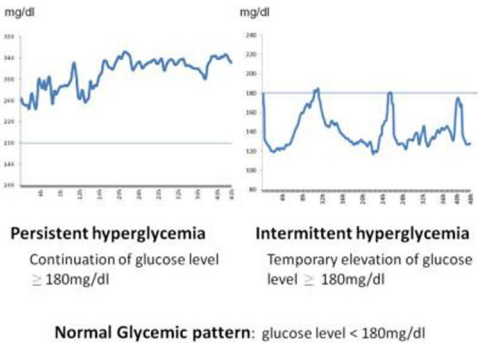
Background: Acute hyperglycemia on admission increases risk of cardiac events after ST-elevated myocardial infarction(STEMI) patients. However, it still remains unclear whether acute glycemic variability has the important prognostic significance. Therefore, this study aimed to evaluate the relationship between cardiac events and the variability of glucose levels by a continuous glucose monitoring system (CGMS).
Methods: This prospective study enrolled 40 patients (age 70±14 years, 78 % male) with STEMI. All patients were inserted CGMS on admission and were measured at least 48-hours. CGMS provide with glycemic excursion displayed at 5-minutes intervals, 576 points during 48 hours. Primary end points were the incidence of major adverse cardiac events (MACE) at 1 year, including cardiac death, myocardial infarction, and heart failure.
Results: We found 3 patterns as the change of glucose wave (figure). The three patterns were defined persistent hyperglycemic pattern (PHP), intermittent hyperglycemic pattern (IHP), normal glycemic pattern (NGP). Significant differences were observed regarding the mean amplitude of glycemic excursions among 3 patterns (120±61mg/dl, 93±41mg/dl, and 45±16mg/dl in PHP, IHP, and NGP, respectively p=0.0004). The MACE incidence rates were 75%, 31%, and 5% in PHP, IHP, and NGP, respectively, (p=0.17).



Conclusions: A significant relationship was observed between cardiac events and the variability of hyperglycemic levels during 48 hours after coronary interventions. Patients with PHP, even IHP, were associated with an increased risk of cardiac events.

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The Effects of Statin Therapy in Patients With ST-segment Elevation Myocardial Infarction According to Complete or Incomplete Revascularization

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Background: The purpose of this study was to evaluate the effects of statin treatment in patients with ST-segment elevation myocardial infarction (STEMI) according to completeness of revascularization.
Methods: From a total of 6657 STEMI patients who were registered in Korean Acute Myocardial Infarction Registry from November 2005 to December 2007, 766 patients were selected by subsequent propensity score matching (Age-, Sex-, LDL-cholesterol level-, LVEF-) for 4 groups; complete revascularization with (CR+Statin, n=199) or without statin treatment (CR-Statin, n=193) and incomplete revascularization with (ICR+Statin, n=178) or without statin treatment (ICR-Statin, n=196). Major adverse cardiac events (MACE) such as all-cause death, myocardial infarction (MI), target vessel revascularization (TVR) were evaluated for 12 months.
Results: The rate of in-hospital mortality was not different among groups (3.0% in CR+Statin vs. 5.7% in CR-Statin vs. 3.4% in ICR+Statin, 3.6% in ICR-Statin, p=0.520). During 12 months follow-up, MACE was developed in 15.5% of total patients (10.1% of CR+Statin, 13.5% of CR-Statin, 15.2% of ICR+Statin and 23.5% of ICR-Statin, p=0.002). TVR (4.0% of CR+Statin vs. 5.2% of CR-Statin vs. 6.2% of ICR+Statin, 16.3% of ICR-Statin, p<0.001) were significantly different among groups during 12 months follow-up. In subgroup analysis of patients with complete revascularization, statin+ group has decreasing trend of MACE than statin- group, but not significantly (10.1% vs. 13.5%, p=0.293). In case of patients with incomplete revascularization, statin+ group has significantly lower MACE than statin- group (15.2% vs. 23.5%, p=0.043).
Conclusions: The treatment of statin in patients with STEMI patients was considered to improve clinical outcomes. Moreover, patients with incomplete revascularization of STEMI performing primary PCI had more beneficial effects of statin therapy than with complete revascularization.